UNCLASSIFIED CIRC	ONLY	•	<u> </u>	CONFIDENTIAL EXECUTE	
RO	UTING	AND	RECOF	RD SHEET	
SUBJECT: (Optional)		. 5.5 - 5.			
FROM: Chief, R&D-EP				NO.	
				12 July 1956	
TO: (Officer designation, room number, and building)	DATE		OFFICER'S	COMMENTS (Number each comment to show from wh	
	REC'D	FWD'D	INITIALS	to whom. Draw a line across column after each commer	
1. Chief, R&D/Lab			99000		
2. CR			ch	Project	
3. Dosegn			Ner		
4.			ges	Joe: Apparently concerns some of the enjuryment intended for less will your received Passed for wife & file/mp.	
5.			0-3	entended for less will for	
6.				4:31/2 / sie po 200 ma	
7.				is somewhat high when	
8.				told sugueried that was the may what would be obtained go	
9.				100 ma was the	
10.					
11.				CFTS 4-12-80 808632	
12.			MP	034	
13.		JUST	NE		
14.				CONFIDENTIAL	
15.	1				

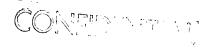
25X1

25X1

25X1

SECRET

The Files		12 July 1956
Trip and Progress Report,	Contract ND-116, T.	0. 1
1. On 27 June 1956, in or visited the plant of		1
for the purpose of becoming according progress of the contractor.	quainted with this t . Those persons con	ask and of observ- tected at were:
2. Insemoh as I have jus purpose of this visit was to be	come acquainted wit	h the objectives
net in office,	handling this task where a resum of	the entire program
ensued. Specific points were a of the batteries was discussed mentioned.	wrought up, of which and means to increa a BELOZ/M silvercel	se that life were
a miniature hand crank generate recharging these cells. We al	or which could possi	bly be used for
solar cells to maintain some of it was pointed out that the cha	the life of these	batteries. although
tory has been queried on this ;	point; they say at 6	volts a total charg-
ing our ent of approximately 20 sunlight conditions.	o entranche cuit he	expected upper notes!
3. drew a block distincted the various points wi	liagram of the antic	ipated system and
present time. The two items or continuous turing mechanism of	i which they are con-	centrating are the
that the tuning range of from possible in one continuous bear		will be
been tried, the results are not particular system will be used,	yet conclusive eno	ugh to indicate which
use of a shorted parallel reson	ant line with a not	or driven aliding contact.



. 25X1

25X1 I 25X1

25X1 | | 25X1

25X1 25X1

25X1

25X1

25X1

25X1 25X1

. 25X1

25X1

. 25X1

25X1

25X1

25X1

. 25x1

25X1 25X1

. 25x1

25X1

25X1

25X1

25X1

25X1

. 25x1

25X1

25X1

25X1

. 25x1

25X1

The recorder activity has gone along two directions. producers of ministure bettery-powered tape recorders, have been approached and altered one of their basic mechanisms to operate at 30 inches per second. This is a small electric motor-driven unit, utilizing a mechanical governor. The total weight of the system is 3 1/2 pounds, exclusive of the battery. As a second approach, the requested to investigate recorders and to deliver one capable of meeting these requirements. Examination of the unit reject several questions. I was somewhat dublous of the ability of the meet low temperature operating specifiations because of the greats in the drive mechanism for the mechanical governor, plus the fact that the oil wetted felt pade on this governor would harden at low tenperstures. I suggested the removal of the mechanical governor in its entirity and the substitution of a precision DC motor. indicated that he had discussed this point with but they found that no motor was suitable for the job. I pointed out that precision IC motors cost between \$100.00 and \$200.00 each, and that incorporation of such units would have priced this item completely out of the market is concerned. Therefore, they had sought less expensive means of maintaining speed, and further they were not concerned with low temperature operation. indicated his desire to investigate these speed controled notors. 4. The question of packaging of the units was also raised. Earlier indication had been that the only restriction was 60 pounds in three packages with specific dimensions not critical. In looking over the specifications for the magnetic tape recorder as asked of the it was noted that the dimensions called for 9 by 9 by 16 inches. The previous discussions with of SFO has indicated that are going to be used to house this equipment. On this basis, an arbitrary dimension of 20 by 15 by 5 has been arrived at, although the are not evailable. These dimension limits were given to _______ who expressed some concern about being able to meet the 5-inch maximum. It is believed that the tape recorder will present no problem, although shielding around the local oscillator for the receiver may be extremely difficult to compress into this sime. has contacted the to investigate an If explifier for use in this system. This amplifier should have a center frequency of 1 megacycle with a band pass of approximately 200 kilogyales. A ball park figure from indicates that they will ask approximately 375,000.00 for developing this unit. The tude is that they will develop their own if is going to ask this has no surface barrier transistors, and with a delivery time of approximately 30 days from the supplier, we agreed to loan several units to to facilitate their experiments. These will be repaid to

SECRET

OC-E/R&D-EP/FCS: mjr (12 July 1956)

us at a later date.

Dev-ep